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AMSAT NEWS SERVICE
ANS-050

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:

ans-editor@amsat.org

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* OSCAR SKN Best Fist Winners
* AMSAT Awards Issued
* ARISS Status - 13 February 2006

SB SAT @ AMSAT $ANS-050.01
SuitSat Telemetry Analysis Continues

AMSAT News Service Bulletin 050.01
 From AMSAT HQ SILVER SPRING, MD.
February 19, 2006
To All RADIO AMATEURS
BID: $ANS-050.01

SuitSat Telemetry Shows Conditions in Space

Amateur radio stations have continued to provide reception reports from SuitSat over the past week. The recorded voices along with the SSTV signal have been heard.

Richard, N2SPI has paid close attention to the telemetry voice on SuitSat and has provided notable data regarding the temperature inside the Orlan spacesuit and the battery voltage powering the electronics.

Richard's temperature data shows that the temperature has been rising at somewhat less than 1°C per day. The temperature was 12°C on February 8 and had risen up to 16°C by February 16. This is valuable data in light of an earlier hypothesis that SuitSat's batteries had frozen.

The battery voltage is based on a 28 volt scale. Richard's data captured on February 8 shows the battery at 26.7 volts. The voltage has slowly dropped over the past week with the batteries at 26.3 volts on February 16. This is only a drop of 0.4 volts during this period.

Lou, W5DID, one of SuitSat's builders, said, "The telemetry data becomes even more important as the mission nears it's end. As the battery voltage nears 12V, the regulator will no longer be able to maintain 12v output. At a battery voltage below 9V all transmissions will cease. The computer will continue to operate down to 3V although with no transmissions, Suitsat will appear dead. I expect this drop off to occur very rapidly."

And the end may be near. Richard has continued his work on receiving SuitSat's telemetry and provides this analysis, "Between February 15 to February 16, the battery voltage dropped only 0.2 volts. In the time between February 16 to February the battery voltage dropped 1.1 volts.

As you can see, there is a noticeable acceleration in the rate of battery voltage change. This battery appears to have a "knee" in its discharge characteristic. If this is so, it appears we have now dropped over the "knee".

This data is important since SuitSat-1 is the first flight experiment using the discarded Orlan spacesuit as a low-cost platform to carry experiments in a short-term, low earth orbit. Well done, Richard!

Frank, KA3HDO, AMSAT-VP for Human Spaceflight Programs, and also is the ARISS International Chairman, said, "Now, more than ever, we need to see how long SuitSat will stay in operation. The SuitSat team plans to provide special recognition to the person that copies the last SuitSat telemetry, specifically the Mission Time and Battery Voltage."

[ANS thanks Richard, N2SPI, and the ARISS team for the above information]

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SB SAT @ AMSAT $ANS-050.02
OSCAR SKN Best Fist Winners

AMSAT News Service Bulletin 050.02
 From AMSAT HQ SILVER SPRING, MD.
February 19, 2006
To All RADIO AMATEURS
BID: $ANS-050.02

Many thanks to all who participated in Straight Key Night on OSCAR 2006. The following operators, listed alphabetically by call sign, each received at least one "Best Fist" nomination from someone they worked. Most of these received multiple nominations.

Keith O'Brien, N4ZQ
Andy MacAllister, W5ACM
Cliff Buttschardt, K7RR
Kerry LaDuke, WC7V
Joe Prokop, KC8RAN
Grant Zehr, AA9LC
Frank Wiesenmeyer, K9CIS

Congratulations to all of our 2006 winners. See you next year!

[ANS thanks Ray, W2RS for the above information]

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SB SAT @ AMSAT $ANS-050.03
AMSAT Awards Issued

AMSAT News Service Bulletin 050.03
 From AMSAT HQ SILVER SPRING, MD.
February 19, 2006
To All RADIO AMATEURS
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Congratulations go out to all of the following:

Mike Driggers, W5CRT, Satellite Communicators Club Award

Zachary Schrempp, KE7YEQ, AMSAT Satellite Communications Achievement Award #429

Perry Yantis, WB8OTH, W4AMI Basic Award #40 with endorsements for 2K, 3K and 4K

Perry Yantis, WB8OTH, W4AMI 5,000 Award #19

David Romero, EB4DEH, 51 on 51 Award #63

To see all the awards visit http://www.amsat.org or http://www.amsatnet.com

[ANS thanks Bruce, KK5DO for the above information]

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SB SAT @ AMSAT $ANS-050.04
ARISS Status - 13 February 2006

AMSAT News Service Bulletin 050.04
From AMSAT HQ SILVER SPRING, MD.
February 19, 2006
To All RADIO AMATEURS
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1. SuitSat Status

Reports from 12 February indicate that SuitSat is still active. Deployed on February 3, SuitSat has been transmitting greetings and telemetry continuously ever since, although the signal strength is weaker than had been anticipated. The http://www.suitsat.org website has received nearly 8 million hits this month, and some of the audio and SSTV images received by stations around the world have been posted to this website: http://www.aj3u.com/blog/.

Stations should continue to listen for SuitSat and are asked to share any telemetry received that might be helpful with this project.

SuitSat has excited both students and the general public to the point that some individuals have expressed interest in obtaining amateur radio licenses. It has also sparked an interest in those who already have their amateur radio licenses, and because of this project are either cleaning up their current equipment or upgrading their stations. This project has also resulted in a few new ARISS recruits. ARRL ran a few web stories on SuitSat status. See: "'SuitSat-1' is Now AO-54; Reports Persist of Weak Signals"
http://www.arrl.org/news/stories/2006/02/07/2/?nc=1
and "New York Station Copies Complete 'SuitSat-1' Telemetry"
http://www.arrl.org/news/stories/2006/02/08/5/?nc=1

2. Dale, Oklahoma Contact Successful

On Tuesday, February 7, fourteen students from Dale High School in Dale, Oklahoma asked 15 questions of Bill McArthur, KC5ACR, in front of a crowd of 500 students, faculty, and guests. Dale Public Schools have a total enrollment of 700 and all of the students from grades 3 through 12

were present for the contact. Two Oklahoma City television stations, several newspapers, and CQ VHF Magazine covered the event. Coy Day, ARRL West Gulf Division Director, and John Thomason, ARRL Oklahoma Section Manager, were both present. After an 80 minute break, the same students that asked the Dale questions read the DeGolyer questions while listening to the DeGolyer Contact. Channel Oklahoma ran an article, "Students Get Space Age Treat." See: http://www.channeloklahoma.com/education/6819161/detail.html

3. Dallas School Contact Successful

On Tuesday, February 7, Bill McArthur, KC5ACR, answered another 17 questions posed to him by 17 students at E.L. DeGolyer Elementary School in Dallas, Texas. Students, teachers, and parents gathered in the auditorium to watch the event. Jim Haynie, ARRL Past President, and Tom Blackwell, ARRL North Texas Section Manager, also attended. The Dallas Independent School District Video Production Crew produced a documentary of this event which included the Space Day activities that preceded it.

DeGolyer is one of ARRL's Big Project schools, and as such, an amateur radio station was added to the school, sponsored by the ARRL. Students who participated in the contact were licensed Amateur Radio operators. DeGolyer students also participated in AMSAT's 2002 Annual Meeting held in Fort Worth. The 5th grade students may be seen building S-band antennas for the AO-40 satellite (from cardboard boxes and aluminum foil) on the following website: http://www.pbase.com/tomcat/kids__amsat.

Dallas News covered the DeGolyer contact in an article, "Students have a stellar dialogue." See: http://www.dallasnews.com/s/dws/news/localnews/stories/DN-spacetalk_08met.ART.North.Edition2.73e882d.html

4. Naples, Florida School Contact Successful

On February 8, twelve children from two Florida NASA Explorer Schools, Pine Ridge Middle School and Immokalee Middle School, asked 12 questions of Bill McArthur, KC5ACR. An audience of approximately 150 gathered in Pine Ridge's multipurpose room to witness the contact as it was broadcast to all Pine Ridge Middle school classes via closed circuit TV, and was webcast to the entire school district. Pine Ridge and Immokalee students, NES teachers Sally Johnson, Bob Call, Lori Cadwell and Sharon Lea, forty students and teachers from Naples Lutheran Academy, Collier County Commissioner Frank Halas, Collier

County Superintendent of Schools Ray Baker, Collier County School Board member Patricia Carroll, Pine Ridge Middle School Principal George Brenco, Pine Ridge Assistant Principal David Mankiewicz, many district level administrators, and Pine Ridge Middle school parents were present. The radio operator during the event was Taylor Dunfee, K4TKD, a student at Gulf Coast High School. Two television stations, WINK News and FOX News filmed the event. A local radio station interviewed the coordinating teacher, Sharon Lea, and the Naples Daily News also covered the event.

5. ARRL Article on West Point, Timber Creek Contacts

ARRL covered the West Point and Timber Creek contacts in an article, "Very Full Schedule Keeps Space Station Crew Hopping, Cadets Told." See: http://www.arrl.org/news/stories/2006/02/10/1/?nc=1

6. McArthur Completes DXCC, Sets new Record

Bill McArthur made a few contacts before and after last week's EVA, and has now exceeded the 100 countries needed for his DXCC award. He adds this to his awards for Worked All States and Worked All Continents on both UHF and VHF, which he completed earlier in this expedition.

McArthur participated in three school contacts this week, giving him a total of 24 successful contacts during a single increment. This breaks the previous record of 23 set by Leroy Chiao during Expedition 10. Congratulations Bill!

On February 10, ARRL posted a story on McArthur's accomplishments. See: http://www.arrl.org/

7. ISS Contact Piques Educators' Interest

ARISS member Kenneth Ransom of JSC attended a Space Explorers conference on Sunday, February 5 and spoke with approximately 12 educators about the SuitSat project. While giving his talk, the teachers followed him outside for an Amateur Radio demonstration using the International Space Station. As the ISS was overhead at that time, Kenneth had the good fortune to speak with astronaut Bill McArthur onboard the Space Station. This impromptu contact generated much interest among his audience in ham radio and its use in the classroom.

8. ARISS School Selection Committee Meeting Held

The bimonthly ARISS Educational Outreach/School Selection Committee meeting was held on Thursday, February 9. Among the items discussed were the school contacts, lesson plans, and FCC regulations on third party traffic. The minutes have been posted on the ARISS website. See: http://www.rac.ca/ariss/arissschm.htm

[ANS thanks Carol, KB3LKI for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

73, This week's ANS Editor,
Lee McLamb, KU4OS
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